

not amended are also listed for ease of reference, for example, claims 17-19, 21, 22, 25, 26, 29, 30, 36, 81, 91-93, 95, 96, 99, 100, 103, 104, 109, 112, 129-131, 133, 134, 137, 138, 141, 142, and 150.

1. (Amended) A method of treating a gastric acid related disorder in a subject in need thereof, comprising:

*coated or uncoated?*  
providing a solid pharmaceutical composition for oral administration to the subject, the composition comprising a therapeutically effective amount of at least one acid labile, substituted benzimidazole H<sup>+</sup>, K<sup>+</sup>-ATPase proton pump inhibitor, and an amount of at least one buffering agent sufficient to increase gastric fluid pH to a pH that prevents acid degradation of at least some of the proton pump inhibitor in the gastric fluid so as to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1 µg/ml at any time within about 30 minutes after administration of the composition; and orally administering the pharmaceutical composition to the subject.

2. (Amended) The method of claim 1, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15 µg/ml at any time within about 30 minutes after administration of the composition.

3. (Amended) The method of claim 1, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15 µg/ml at any time within about 20 minutes after administration of the composition.

4. (Amended) The method of claim 1, wherein the composition is administered in an amount to maintain a serum concentration of the proton pump inhibitor greater than about 0.15 µg/ml from about 10 minutes to about 30 minutes after administration of the composition.

5. (Amended) The method of claim 1, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1 µg/ml at any time within about 15 minutes after administration of the composition.

6. (Amended) The method of claim 1, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15 µg/ml at any time within about 15 minutes after administration of the composition.

8. (Amended) The method of claim 1, wherein the pharmaceutical composition is in a form selected from the group consisting of a tablet, capsule, powder, suspension tablet, effervescent tablet or capsule, chewable tablet, granules, pellets, and a liquid created by mixing any of the foregoing with an aqueous medium.

9. (Amended) The method of claim 1, wherein at least some of the proton pump inhibitor is coated.

10. (Amended) The method of claim 1, wherein the amount of the proton pump inhibitor absorbed into the serum is therapeutically effective in treating the gastric acid related disorder selected from the group consisting of duodenal ulcer disease, gastric ulcer disease, gastroesophageal reflux disease, erosive esophagitis, poorly responsive symptomatic gastroesophageal reflux disease, pathological gastrointestinal hypersecretory disease, Zollinger Ellison Syndrome, heartburn, esophageal disorder, and acid dyspepsia.

11. (Amended) The method of claim 1, wherein the proton pump inhibitor is selected from the group consisting of omeprazole, lansoprazole, rabeprazole, esomeprazole, pantoprazole, pariprazole, and leminoprazole, or an enantiomer, isomer, tautomer, ester, amide, derivative, prodrug, free base, or salt thereof.

12. (Amended) The method of claim 1, wherein the amount of the proton pump inhibitor is about 2 mg to about 300 mg.

13. (Amended) The method of claim 1, wherein the amount of the proton pump inhibitor is about 10 mg to about 120 mg.

14. (Amended) The method of claim 1, wherein the amount of the proton pump inhibitor is about 2 mg, about 5 mg, about 10 mg, about 15 mg, about 20 mg, about 25 mg, about 30 mg, about 35 mg, about 40 mg, about 45 mg, about 50 mg, about 55 mg, about 60 mg, about 65 mg, about 70 mg, about 75 mg, about 80 mg, about 85 mg, about 90 mg, about 95 mg, about 100 mg, about 105 mg, about 110 mg, about 115 mg, or about 120 mg.

17. (Not Amended) The method of claim 1, wherein the amount of the buffering agent is about 0.1 mEq to about 2.5 mEq per mg of proton pump inhibitor.

18. (Not Amended) The method of claim 1, wherein the amount of the buffering agent is about 10 mEq to about 70 mEq.

19. (Not Amended) The method of claim 1, wherein the amount of the buffering agent is at least 10 mEq.

20. (Amended) The method of claim 1, wherein the amount of the buffering agent is about 15 mEq to about 55 mEq.

21. (Not Amended) The method of claim 1, wherein the buffering agent comprises a combination of calcium carbonate and sodium bicarbonate.

22. (Not Amended) The method of claim 1, wherein the buffering agent comprises a bicarbonate salt of a Group IA metal.

23. (Amended) The method of claim 1, wherein the buffering agent is selected from the group consisting of a bicarbonate salt of a Group IA metal, an alkali earth metal buffering

agent, a calcium buffering agent, a magnesium buffering agent, an aluminum buffering agent,  
 sodium bicarbonate, potassium bicarbonate, magnesium hydroxide, magnesium lactate,  
 magnesium gluconate, magnesium oxide, magnesium aluminate, magnesium carbonate,  
 magnesium silicate, magnesium citrate, aluminum hydroxide, aluminum phosphate, aluminum  
 hydroxide/magnesium carbonate, potassium carbonate, potassium citrate, aluminum  
 hydroxide/sodium bicarbonate coprecipitate, aluminum glycinate, aluminum magnesium  
 hydroxide, sodium citrate, sodium tartrate, sodium acetate, sodium carbonate, sodium  
 polyphosphate, potassium polyphosphate, sodium pyrophosphate, sodium dihydrogen phosphate,  
 potassium pyrophosphate, disodium hydrogenphosphate, dipotassium hydrogenphosphate,  
 trisodium phosphate, tripotassium phosphate, potassium metaphosphate, calcium acetate,  
 calcium glycerophosphate, calcium chloride, calcium hydroxide, calcium lactate, calcium  
 carbonate, calcium gluconate, calcium bicarbonate, calcium citrate, calcium phosphate  
 magnesium phosphate, potassium phosphate, sodium phosphate,  
 trihydroxymethylaminomethane, an amino acid, an acid salt of an amino acid, an alkali salt of an  
 amino acid, and combinations of any of the foregoing.

25. (Not Amended) The method of claim 1, wherein the buffering agent comprises sodium bicarbonate.

26. (Amended) The method of claim 25, wherein the sodium bicarbonate is in an amount from about 250 mg to about 4000 mg.

27. (Amended) The method of claim 25, wherein the sodium bicarbonate is in an amount from about 1000 mg to about 2000 mg.

28. (Amended) The method of claim 25, wherein the sodium bicarbonate is in an amount of at least about 400 mg.

29. (Not Amended) The method of claim 1, wherein the buffering agent comprises calcium carbonate.

30. (Not Amended) The method of claim 29, wherein the calcium carbonate is in an amount from about 250 mg to about 4000 mg.

31. (Amended) The method of claim 29, wherein the calcium carbonate is in an amount from about 1000 mg to about 2000 mg.

32. (Amended) The method of claim 29, wherein the calcium carbonate is in an amount of at least about 400 mg.

34. (Amended) The method of claim 1, wherein the composition further comprises at least one of an excipient, a pharmaceutically compatible carrier, a binder, a suspending agent, a flavoring agent, a sweetening agent, a disintegrant, a flow aid, a lubricant, an adjuvant, a colorant, a diluent, a moistening agent, a preservative, a parietal cell activator, an anti-foaming agent, an antioxidant, a chelating agent, an antifungal agent, an antibacterial agent, or an isotonic agent, and combinations of any of the foregoing.

35. (Amended) The method of claim 1, wherein the composition further comprises one or more flavoring agents comprising aspartame, thaumatin, sucrose, dextrose, or a chocolate, a cocoa, a cola, a peppermint, a spearmint, a watermelon, an apple, a caramel, a meat, a root beer, a maple, a cherry, a coffee, a mint, a licorice, a nut, a butter, a butterscotch, a butter pecan, or a peanut butter flavoring, and combinations of any of the foregoing.

36. (Not Amended) The method of claim 1, wherein the composition is administered once or twice a day.

75. (Amended) A method of treating a gastric acid related disorder in a subject in need thereof, comprising:

*Sub C1*  
orally administering to the subject a pharmaceutical composition in an oral dosage form for immediate release into an absorption pool having a highly acidic pH, the composition comprising a therapeutically effective amount of at least one acid labile, substituted benzimidazole  $H^+, K^+$ -ATPase proton pump inhibitor, and an amount of at least one buffering agent sufficient to increase the pH of the absorption pool of the subject to a pH that prevents acid degradation of at least some of the proton pump inhibitor so as to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1  $\mu\text{g/ml}$  at any time within about 30 minutes after administration of the composition.

*AR*  
76. (Amended) The method of claim 75, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15  $\mu\text{g/ml}$  at any time within about 30 minutes after administration of the composition.

77. (Amended) The method of claim 75, wherein the composition is administered in an amount to maintain a serum concentration of the proton pump inhibitor greater than about 0.15  $\mu\text{g/ml}$  from about 10 minutes to about 30 minutes after administration of the composition.

78. (Amended) The method of claim 75, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15  $\mu\text{g/ml}$  at any time within about 20 minutes after administration of the composition.

79. (Amended) The method of claim 75, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1  $\mu\text{g/ml}$  at any time within about 15 minutes after administration of the composition.

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80. (Amended) The method of claim 75, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15  $\mu\text{g/ml}$  at any time within about 15 minutes after administration of the composition.

81. (Not Amended) The method of claim 75, wherein the subject is fasting.

Select  
82. (Amended) The method of claim 75, wherein the pharmaceutical composition is in a form selected from the group consisting of a tablet, capsule, powder, suspension tablet, effervescent tablet or capsule, chewable tablet, granules, pellets, and a liquid created by mixing any of the foregoing with an aqueous medium.

83. (Amended) The method of claim 75, wherein at least some of the proton pump inhibitor is coated.

85. (Amended) The method of claim 75, wherein the proton pump inhibitor is selected from the group consisting of omeprazole, lansoprazole, rabeprazole, esomeprazole, pantoprazole, pariprazole, and leminoprazole, or an enantiomer, isomer, tautomer, ester, amide, derivative, prodrug, free base, or salt thereof.

86. (Amended) The method of claim 75, wherein the amount of the proton pump inhibitor is about 2 mg to about 300 mg.

87. (Amended) The method of claim 75, wherein the amount of the proton pump inhibitor is about 10 mg to about 120 mg.

88. (Amended) The method of claim 75, wherein the amount of the proton pump inhibitor is about 2 mg, about 5 mg, about 10 mg, about 15 mg, about 20 mg, about 25 mg, about 30 mg, about 35 mg, about 40 mg, about 45 mg, about 50 mg, about 55 mg, about 60 mg, about 65 mg, about 70 mg, about 75 mg, about 80 mg, about 85 mg, about 90 mg, about 95 mg, about 100 mg, about 105 mg, about 110 mg, about 115 mg, or about 120 mg.

91. (Not Amended) The method of claim 75, wherein the amount of the buffering agent is about 0.1 mEq to about 2.5 mEq per mg of proton pump inhibitor.

92. (Not Amended) The method of claim 75, wherein the amount of the buffering agent is about 10 mEq to about 70 mEq.

93. (Not Amended) The method of claim 75, wherein the amount of the buffering agent is at least 10 mEq.

94. (Amended) The method of claim 75, wherein the amount of the buffering agent is about 15 mEq to about 55 mEq.

95. (Not Amended) The method of claim 75, wherein the buffering agent comprises a combination of calcium carbonate and sodium bicarbonate.

96. (Not Amended) The method of claim 75, wherein the buffering agent comprises a bicarbonate salt of a Group IA metal.

97. (Amended) The method of claim 75, wherein the buffering agent is selected from the group consisting of a bicarbonate salt of a Group IA metal, an alkali earth metal buffering agent, a calcium buffering agent, a magnesium buffering agent, an aluminum buffering agent, sodium bicarbonate, potassium bicarbonate, magnesium hydroxide, magnesium lactate, magnesium gluconate, magnesium oxide, magnesium aluminate, magnesium carbonate, magnesium silicate, magnesium citrate, aluminum hydroxide, aluminum phosphate, aluminum hydroxide/magnesium carbonate, potassium carbonate, potassium citrate, aluminum hydroxide/sodium bicarbonate coprecipitate, aluminum glycinate, aluminum magnesium hydroxide, sodium citrate, sodium tartrate, sodium acetate, sodium carbonate, sodium polyphosphate, sodium dihydrogen phosphate, potassium polyphosphate, sodium pyrophosphate, potassium pyrophosphate, disodium hydrogenphosphate, dipotassium hydrogenphosphate,



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trisodium phosphate, tripotassium phosphate, potassium metaphosphate, calcium acetate, calcium glycerophosphate, calcium chloride, calcium hydroxide, calcium lactate, calcium carbonate, calcium gluconate, calcium bicarbonate, calcium citrate, calcium phosphate magnesium phosphate, potassium phosphate, sodium phosphate, trihydroxymethylaminomethane, an amino acid, an acid salt of an amino acid, an alkali salt of an amino acid, and combinations of any of the foregoing.

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99. (Not Amended) The method of claim 75, wherein the buffering agent comprises sodium bicarbonate.

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100. (Not Amended) The method of claim 99, wherein the sodium bicarbonate is in an amount from about 250 mg to about 4000 mg.

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101. (Amended) The method of claim 99, wherein the sodium bicarbonate is in an amount from about 1000 mg to about 2000 mg.

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102. (Amended) The method of claim 99, wherein the sodium bicarbonate is in an amount of at least about 400 mg.

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103. (Not Amended) The method of claim 75, wherein the buffering agent comprises calcium carbonate.

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104. (Not Amended) The method of claim 103, wherein the calcium carbonate is in an amount from about 250 mg to about 4000 mg.

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105. (Amended) The method of claim 103, wherein the calcium carbonate is in an amount from about 1000 mg to about 2000 mg.

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106. (Amended) The method of claim 103, wherein the calcium carbonate is in an amount of at least about 400 mg.

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108. (Amended) The method of claim 75, wherein the composition further comprises at least one of an excipient, a pharmaceutically compatible carrier, a binder, a suspending agent, a flavoring agent, a sweetening agent, a disintegrant, a flow aid, a lubricant, an adjuvant, a colorant, a diluent, a moistening agent, a preservative, a parietal cell activator, an anti-foaming agent, an antioxidant, a chelating agent, an antifungal agent, an antibacterial agent, or an isotonic agent, and combinations of any of the foregoing.

109. (Not Amended) The method of claim 75, wherein the subject is an adult human.

110. (Amended) The method of claim 75, wherein the disorder is selected from the group consisting of duodenal ulcer disease, gastric ulcer disease, gastroesophageal reflux disease, erosive esophagitis, poorly responsive symptomatic gastroesophageal reflux disease, pathological gastrointestinal hypersecretory disease, Zollinger Ellison Syndrome, heartburn, esophageal disorder, and acid dyspepsia.

111. (Amended) The method of claim 75, wherein the composition further comprising one or more flavoring agents comprising aspartame, thaumatin, sucrose, dextrose, or a chocolate, a cocoa, a cola, a peppermint, a spearmint, a watermelon, an apple, a caramel, a meat, a root beer, a maple, a cherry, a coffee, a mint, a licorice, a nut, a butter, a butterscotch, a butter pecan, or a peanut butter flavoring, and combinations of any of the foregoing.

112. (Not Amended) The method of claim 75, wherein the composition is administered once or twice a day.

113. (Amended) A method of making a pharmaceutical composition for oral administration to a subject, comprising:

admixing a therapeutically effective amount of at least one acid labile, substituted benzimidazole  $H^+, K^+$ -ATPase proton pump inhibitor, and an amount of at least one buffering agent sufficient to increase the pH of an absorption pool of the subject to a pH that prevents acid degradation of at least some of the proton pump inhibitor so as to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1  $\mu\text{g/ml}$  at any time within about 30 minutes after administration of the composition

114. (Amended) The method of claim 113, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15  $\mu\text{g/ml}$  at any time within about 30 minutes after administration of the composition.

115. (Amended) The method of claim 113, wherein the composition is administered in an amount to maintain a serum concentration of the proton pump inhibitor greater than about 0.15  $\mu\text{g/ml}$  from about 10 minutes to about 30 minutes after administration of the composition.

116. (Amended) The method of claim 113, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15  $\mu\text{g/ml}$  at any time within about 20 minutes after administration of the composition.

117. (Amended) The method of claim 113, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1  $\mu\text{g/ml}$  at any time within about 15 minutes after administration of the composition.

118. (Amended) The method of claim 113, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15  $\mu\text{g/ml}$  at any time within about 15 minutes after administration of the composition.

120. (Amended) The method of claim 113, wherein the pharmaceutical composition is in a form selected from the group consisting of a tablet, capsule, powder, suspension tablet, effervescent tablet or capsule, chewable tablet, granules, pellets, and a liquid created by mixing any of the foregoing with an aqueous medium.

121. (Amended) The method of claim 113, wherein at least some of the proton pump inhibitor is coated.

122. (Amended) The method of claim 113, wherein the proton pump inhibitor is acid sensitive.

123. (Amended) The method of claim 113, wherein the proton pump inhibitor is selected from the group consisting of omeprazole, lansoprazole, rabeprazole, esomeprazole, pantoprazole, pariprazole, and leminoprazole, or an enantiomer, isomer, tautomer, ester, amide, derivative, prodrug, free base, or salt thereof.

124. (Amended) The method of claim 113, wherein the amount of the proton pump inhibitor is about 2 mg to about 300 mg.

125. (Amended) The method of claim 113, wherein the amount of the proton pump inhibitor is about 10 mg to about 120 mg.

126. (Amended) The method of claim 113, wherein the amount of the proton pump inhibitor is about 2 mg, about 5 mg, about 10 mg, about 15 mg, about 20 mg, about 25 mg, about 30 mg, about 35 mg, about 40 mg, about 45 mg, about 50 mg, about 55 mg, about 60 mg, about 65 mg, about 70 mg, about 75 mg, about 80 mg, about 85 mg, about 90 mg, about 95 mg, about 100 mg, about 105 mg, about 110 mg, about 115 mg, or about 120 mg.

129. (Not Amended) The method of claim 113, wherein the amount of the buffering agent is about 0.1 mEq to about 2.5 mEq per mg of proton pump inhibitor.

*Sub C* 130. (Not Amended) The method of claim 113, wherein the amount of the buffering agent is about 10 mEq to about 70 mEq.

131. (Not Amended) The method of claim 113, wherein the amount of the buffering agent is at least 10 mEq.

*QA* 132. (Amended) The method of claim 113, wherein the amount of the buffering agent is about 15 mEq to about 55 mEq.

133. (Not Amended) The method of claim 113, wherein the buffering agent comprises a combination of calcium carbonate and sodium bicarbonate.

134. (Not Amended) The method of claim 113, wherein the buffering agent comprises a bicarbonate salt of a Group IA metal.

*AP* 135. (Amended) The method of claim 113, wherein the buffering agent is selected from the group consisting of a bicarbonate salt of a Group IA metal, an alkali earth metal buffering agent, a calcium buffering agent, a magnesium buffering agent, an aluminum buffering agent, sodium bicarbonate, potassium bicarbonate, magnesium hydroxide, magnesium lactate, magnesium gluconate, magnesium oxide, magnesium aluminate, magnesium carbonate, magnesium silicate, magnesium citrate, aluminum hydroxide, aluminum phosphate, aluminum hydroxide/magnesium carbonate, potassium carbonate, potassium citrate, aluminum hydroxide/sodium bicarbonate coprecipitate, aluminum glycinate, aluminum magnesium hydroxide, sodium citrate, sodium tartrate, sodium acetate, sodium carbonate, sodium polyphosphate, sodium dihydrogen phosphate, potassium polyphosphate, sodium pyrophosphate, potassium pyrophosphate, disodium hydrogenphosphate, dipotassium hydrogenphosphate, trisodium phosphate, tripotassium phosphate, potassium metaphosphate, calcium acetate, calcium glycerophosphate, calcium chloride, calcium hydroxide, calcium lactate, calcium

*A20*  
carbonate, calcium gluconate, calcium bicarbonate, calcium citrate, calcium phosphate  
magnesium phosphate, potassium phosphate, sodium phosphate,  
trihydroxymethylaminomethane, an amino acid, an acid salt of an amino acid, an alkali salt of an  
amino acid, and combinations of any of the foregoing.

*A21*  
137. (Not Amended) The method of claim 113, wherein the buffering agent comprises  
sodium bicarbonate.

138. (Not Amended) The method of claim 137, wherein the sodium bicarbonate is in  
an amount from about 250 mg to about 4000 mg.

139. (Amended) The method of claim 137, wherein the sodium bicarbonate is in an  
amount from about 1000 mg to about 2000 mg.

*A21*  
140. (Amended) The method of claim 137, wherein the sodium bicarbonate is in an  
amount of at least about 400 mg.

141. (Not Amended) The method of claim 113, wherein the buffering agent comprises  
calcium carbonate.

142. (Not Amended) The method of claim 141, wherein the calcium carbonate is in an  
amount from about 250 mg to about 4000 mg.

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143. (Amended) The method of claim 141, wherein the calcium carbonate is in an  
amount from about 1000 mg to about 2000 mg.

144. (Amended) The method of claim 141, wherein the calcium carbonate is in an  
amount of at least about 400 mg.

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146. (Amended) The method of claim 113, wherein the composition further comprises  
at least one of an excipient, a pharmaceutically compatible carrier, a binder, a suspending agent,  
a flavoring agent, a sweetening agent, a disintegrant, a flow aid, a lubricant, an adjuvant, a

colorant, a diluent, a moistening agent, a preservative, a parietal cell activator, an anti-foaming agent, an antioxidant, a chelating agent, an antifungal agent, an antibacterial agent, or an isotonic agent, and combinations of any of the foregoing.

147. (Amended) The method of claim 113, wherein the subject has a gastric acid related disorder.

148. (Amended) The method of claim 147, wherein the disorder is selected from the group consisting of duodenal ulcer disease, gastric ulcer disease, gastroesophageal reflux disease, erosive esophagitis, poorly responsive symptomatic gastroesophageal reflux disease, pathological gastrointestinal hypersecretory disease, Zollinger Ellison Syndrome, heartburn, esophageal disorder, and acid dyspepsia.

149. (Amended) The method of claim 113, wherein the composition further comprises one or more flavoring agents comprising aspartame, thaumatin, sucrose, dextrose, or a chocolate, a cocoa, a cola, a peppermint, a spearmint, a watermelon, an apple, a caramel, a meat, a root beer, a maple, a cherry, a coffee, a mint, a licorice, a nut, a butter, a butterscotch, a butter pecan, or a peanut butter flavoring, and combinations of any of the foregoing.

150. (Not Amended) The method of claim 113, wherein the composition is administered once or twice a day.

**III. Addition of Claims**

Please add the following new claims 151-361 as shown below:

*Salci*  
151. (New) The method of claim 1, wherein the amount of the proton pump inhibitor absorbed into the serum is therapeutically effective in treating the gastric acid related disorder selected from the group consisting of a non-erosive reflux disorder, and an NSAID induced ulcer.

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152. (New) The method of claim 75, wherein the disorder is selected from the group consisting of a non-erosive reflux disorder, and an NSAID induced ulcer.

153. (New) The method of claim 147, wherein the disorder is selected from the group consisting of a non-erosive reflux disorder, and an NSAID induced ulcer.



154. (New) A coated or uncoated? solid pharmaceutical composition suitable for oral administration to a subject, comprising: (a) at least one acid labile, substituted benzimidazole  $H^+, K^+$ -ATPase proton pump inhibitor in an amount of about 2 mg to about 300 mg; and (b) at least one buffering agent in an amount of about 0.1 mEq to about 2.5 mEq per mg of proton pump inhibitor, provided that the amount of the buffering agent is sufficient to elevate pH of stomach secretions upon oral administration to the subject to prevent acid degradation of at least some of the proton pump inhibitor in the stomach secretions to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1  $\mu g/ml$  at any time within about 30 minutes after administration of the composition; no standard

*A 2 year CI* wherein the composition is free of sucralfate, and

wherein if the composition is other than a dosage form selected from the group consisting of suspension tablet, chewable tablet, effervescent powder, effervescent tablet, and troche, then the buffering agent is in an amount that is more than about 40 times the amount of proton pump inhibitor on a weight to weight basis in the composition.

155. (New) The composition of claim 154, wherein the composition is a dosage form selected from the group consisting of tablet, capsule, powder, pellets, and granules.

156. (New) The composition of claim 154, wherein at least some of the proton pump inhibitor is coated prior to administration.

157. (New) The composition of claim 154, wherein the proton pump inhibitor is selected from the group consisting of omeprazole, lansoprazole, rabeprazole, esomeprazole,

pantoprazole, pariprazole, and leminoprazole, or an enantiomer, isomer, tautomer, ester, amide, derivative, prodrug, free base, or salt thereof.

158. (New) The composition of claim 157, wherein the proton pump inhibitor is omeprazole, or an enantiomer, isomer, tautomer, ester, amide, derivative, prodrug, free base, or salt thereof.

159. (New) The composition of claim 157, wherein the omeprazole is present in an amount of about 2 mg, about 5 mg, about 10 mg, about 15 mg, about 20 mg, about 25 mg, about 30 mg, about 35 mg, about 40 mg, about 45 mg, about 50 mg, about 55 mg, about 60 mg, about 65 mg, about 70 mg, about 75 mg, about 80 mg, about 85 mg, about 90 mg, about 95 mg, about 100 mg, about 105 mg, about 110 mg, about 115 mg, or about 120 mg.

160. (New) The composition of claim 157, wherein the proton pump inhibitor is lansoprazole, or an enantiomer, isomer, tautomer, ester, amide, derivative, prodrug, free base, or salt thereof.

161. (New) The composition of claim 160, wherein the lansoprazole is present in the composition in an amount of about 2 mg, about 5 mg, about 10 mg, about 15 mg, about 20 mg, about 25 mg, about 30 mg, about 35 mg, about 40 mg, about 45 mg, about 50 mg, about 55 mg, about 60 mg, about 65 mg, about 70 mg, about 75 mg, about 80 mg, about 85 mg, about 90 mg, about 95 mg, about 100 mg, about 105 mg, about 110 mg, about 115 mg, or about 120 mg.

162. (New) The composition of claim 154, further comprising at least one of an excipient, a pharmaceutically compatible carrier, a binder, a suspending agent, a flavoring agent, a sweetening agent, a disintegrant, a flow aid, a lubricant, an adjuvant, a colorant, a diluent, a

moistening agent, a preservative, a parietal cell activator, an anti-foaming agent, an antioxidant, a chelating agent, an antifungal agent, an antibacterial agent, or an isotonic agent, and combinations of any of the foregoing.

163. (New) The composition of claim 154, wherein the buffering agent is selected from the group consisting of a bicarbonate salt of a Group IA metal, an alkali earth metal buffering agent, a calcium buffering agent, a magnesium buffering agent, an aluminum buffering agent, sodium bicarbonate, potassium bicarbonate, magnesium hydroxide, magnesium lactate, magnesium gluconate, magnesium oxide, magnesium aluminate, magnesium carbonate, magnesium silicate, magnesium citrate, aluminum hydroxide, aluminum phosphate, aluminum hydroxide/magnesium carbonate, potassium carbonate, potassium citrate, aluminum hydroxide/sodium bicarbonate coprecipitate, aluminum glycinate, aluminum magnesium hydroxide, sodium citrate, sodium tartrate, sodium acetate, sodium carbonate, sodium polyphosphate, sodium dihydrogen phosphate, potassium polyphosphate, sodium pyrophosphate, potassium pyrophosphate, disodium hydrogenphosphate, dipotassium hydrogenphosphate, trisodium phosphate, tripotassium phosphate, potassium metaphosphate, calcium acetate, calcium glycerophosphate, calcium chloride, calcium hydroxide, calcium lactate, calcium carbonate, calcium gluconate, calcium bicarbonate, calcium citrate, calcium phosphate magnesium phosphate, potassium phosphate, sodium phosphate, trihydroxymethylaminomethane, an amino acid, an acid salt of an amino acid, an alkali salt of an amino acid, and combinations of any of the foregoing.

164. (New) The composition of claim 154, wherein the amount of the buffering agent present in the composition is about 0.5 mEq to about 150 mEq.

165. (New) The composition of claim 154, wherein the amount of the buffering agent present in the composition is about 5 mEq to about 30 mEq.

166. (New) The composition of claim 154, wherein the amount of the buffering agent present in the composition is about 15 mEq to about 55 mEq.

167. (New) The composition of claim 154, wherein the buffering agent is sodium bicarbonate.

168. (New) The composition of claim 167, wherein the amount of the sodium bicarbonate present in the composition is about 2 mEq to about 70 mEq.

169. (New) The composition of claim 167, wherein the amount of the sodium bicarbonate present in the composition is about 10 mEq to about 55 mEq.

170. (New) The composition of claim 167, wherein the amount of the sodium bicarbonate present in the composition is about 12.5 mEq to about 30 mEq.

171. (New) The composition of claim 167, wherein the amount of the sodium bicarbonate present in the composition is about 0.2 mEq, 1 mEq, 2 mEq, 3 mEq, 5 mEq, 10 mEq, 12.5 mEq, 15 mEq, 20 mEq, 25 mEq, 30 mEq, 50 mEq, 70 mEq, or 150 mEq.

172. (New) The composition of claim 154, wherein the buffering agent is calcium carbonate.

173. (New) The composition of claim 172, wherein the amount of the calcium carbonate present in the composition is about 2 mEq to about 70 mEq.

174. (New) The composition of claim 172, wherein the amount of the calcium carbonate present in the composition is about 10 mEq to about 55 mEq.

175. (New) The composition of claim 172, wherein the amount of the calcium carbonate present in the composition is about 12.5 mEq to about 30 mEq.

176. (New) The composition of claim 172, wherein the amount of the calcium carbonate present in the composition is about 0.2 mEq, 1 mEq, 2 mEq, 3 mEq, 5 mEq, 10 mEq, 12.5 mEq, 15 mEq, 20 mEq, 25 mEq, 30 mEq, 50 mEq, 70 mEq, or 150 mEq.

177. (New) The composition of claim 154, wherein the buffering agent is a mixture of sodium bicarbonate and calcium carbonate.

178. (New) The composition of claim 177, wherein the amount of the sodium bicarbonate and calcium carbonate totals about 2 mEq to about 70 mEq.

179. (New) The composition of claim 177, wherein the amount of the sodium bicarbonate and calcium carbonate totals about 10 mEq to about 55 mEq.

180. (New) The composition of claim 177, wherein the amount of the sodium bicarbonate and calcium carbonate totals about 12.5 mEq to about 30 mEq.

181. (New) The composition of claim 177, wherein the amount of the sodium bicarbonate and calcium carbonate totals about 0.2 mEq, 1 mEq, 2 mEq, 3 mEq, 5 mEq, 10 mEq, 12.5 mEq, 15 mEq, 20 mEq, 25 mEq, 30 mEq, 50 mEq, 70 mEq, or 150 mEq.

182. (New) The composition of claim 154, wherein all or part of the proton pump inhibitor is micronized.

183. (New) The composition of claim 154, wherein all or part of the buffering agent is micronized.

*Sub C1*  
184. (New) The composition of claim 154, wherein the composition is administered in an amount to maintain a serum concentration of the proton pump inhibitor greater than about 0.15 µg/ml from about 15 minutes to about 1 hour after administration of the composition.

185. (New) The composition of claim 154, wherein the composition is administered in an amount to maintain a serum concentration of the proton pump inhibitor greater than about 0.15 µg/ml from about 15 minutes to about 1.5 hours after administration of the composition.

*A24*  
186. (New) The composition of claim 154, wherein the composition is administered in an amount to maintain a serum concentration of the proton pump inhibitor greater than about 0.1 µg/ml from about 15 minutes to about 1.5 hours after administration of the composition.

187. (New) The composition of claim 154, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15 µg/ml at any time within about 30 minutes after administration of the composition.

188. (New) The composition of claim 154, wherein the composition is administered in an amount to maintain a serum concentration of the proton pump inhibitor greater than about 0.15 µg/ml from about 10 minutes to about 30 minutes after administration of the composition.

189. (New) The composition of claim 154, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15 µg/ml at any time within about 20 minutes after administration of the composition.

190. (New) The composition of claim 154, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1 µg/ml at any time within about 15 minutes after administration of the composition.

191. (New) The composition of claim 154, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15 µg/ml at any time within about 15 minutes after administration of the composition.

*coated or uncoated*

192. (New) A solid pharmaceutical composition suitable for oral administration to a subject, comprising: (a) at least one acid labile, substituted benzimidazole  $H^+, K^+$ -ATPase proton pump inhibitor in an amount of about 2 mg to about 300 mg, and (b) at least one buffering agent in a total amount greater than about 10 mEq, provided that the amount of the buffering agent is sufficient to elevate pH of stomach secretions upon oral administration to the subject to prevent acid degradation of at least some of the proton pump inhibitor in the stomach secretions to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1  $\mu g/ml$  at any time within about 30 minutes after ingestion of the composition; and

wherein if the composition is other than a dosage form selected from the group consisting of suspension tablet, chewable tablet, effervescent powder, effervescent tablet, and troche, then the buffering agent is in an amount that is more than about 40 times the amount of proton pump inhibitor on a weight to weight basis in the composition.

193. (New) The composition of claim 192, wherein the composition is a dosage form selected from the group consisting of tablet, capsule, powder, pellets, and granules.

194. (New) The composition of claim 192, wherein the composition is a dosage form selected from the group consisting of suspension tablet, chewable tablet, effervescent powder, effervescent tablet, and troche.

195. (New) The composition of claim 192, wherein the proton pump inhibitor is enteric coated prior to administration.

196. (New) The composition of claim 192, wherein the proton pump inhibitor is selected from the group consisting of omeprazole, lansoprazole, rabeprazole, esomeprazole,



pantoprazole, pariprazole, and leminoprazole, or an enantiomer, isomer, tautomer, ester, amide, derivative, prodrug, free base, or salt thereof.

197. (New) The composition of claim 196, wherein the proton pump inhibitor is omeprazole, or an enantiomer, isomer, tautomer, ester, amide, derivative, prodrug, free base, or salt thereof.

*See C1*  
*A24*  
198. (New) The composition of claim 192, wherein the omeprazole is present in the composition in an amount of about 2 mg, about 5 mg, about 10 mg, about 15 mg, about 20 mg, about 25 mg, about 30 mg, about 35 mg, about 40 mg, about 45 mg, about 50 mg, about 55 mg, about 60 mg, about 65 mg, about 70 mg, about 75 mg, about 80 mg, about 85 mg, about 90 mg, about 95 mg, about 100 mg, about 105 mg, about 110 mg, about 115 mg, or about 120 mg.

199. (New) The composition of claim 196, wherein the proton pump inhibitor is lansoprazole, or an enantiomer, isomer, tautomer, ester, amide, derivative, prodrug, free base, or salt thereof.

200. (New) The composition of claim 192, the lansoprazole is present in the composition in an amount of about 2 mg, about 5 mg, about 10 mg, about 15 mg, about 20 mg, about 25 mg, about 30 mg, about 35 mg, about 40 mg, about 45 mg, about 50 mg, about 55 mg, about 60 mg, about 65 mg, about 70 mg, about 75 mg, about 80 mg, about 85 mg, about 90 mg, about 95 mg, about 100 mg, about 105 mg, about 110 mg, about 115 mg, or about 120 mg.

201. (New) The composition of claim 192, further comprising at least one of an excipient, a pharmaceutically compatible carrier, a binder, a suspending agent, a flavoring agent, a sweetening agent, a disintegrant, a flow aid, a lubricant, an adjuvant, a colorant, a diluent, a

moistening agent, a preservative, a parietal cell activator, an anti-foaming agent, an antioxidant, a chelating agent, an antifungal agent, an antibacterial agent, or an isotonic agent, and combinations of any of the foregoing.

202. (New) The composition of claim 192, wherein the buffering agent is selected from the group consisting of a bicarbonate salt of a Group IA metal, an alkali earth metal buffering agent, a calcium buffering agent, a magnesium buffering agent, an aluminum buffering agent, sodium bicarbonate, potassium bicarbonate, magnesium hydroxide, magnesium lactate, magnesium gluconate, magnesium oxide, magnesium aluminate, magnesium carbonate, magnesium silicate, magnesium citrate, aluminum hydroxide, aluminum phosphate, aluminum hydroxide/magnesium carbonate, potassium carbonate, potassium citrate, aluminum hydroxide/sodium bicarbonate coprecipitate, aluminum glycinate, aluminum magnesium hydroxide, sodium citrate, sodium tartrate, sodium acetate, sodium carbonate, sodium polyphosphate, sodium dihydrogen phosphate, potassium polyphosphate, sodium pyrophosphate, potassium pyrophosphate, disodium hydrogenphosphate, dipotassium hydrogenphosphate, trisodium phosphate, tripotassium phosphate, potassium metaphosphate, calcium acetate, calcium glycerophosphate, calcium chloride, calcium hydroxide, calcium lactate, calcium carbonate, calcium gluconate, calcium bicarbonate, calcium citrate, calcium phosphate magnesium phosphate, potassium phosphate, sodium phosphate, trihydroxymethylaminomethane, an amino acid, an acid salt of an amino acid, an alkali salt of an amino acid, and combinations of any of the foregoing.

203. (New) The composition of claim 192, wherein the total amount of the buffering agent is greater than about 16 mEq.

204. (New) The composition of claim 192, wherein the total amount of the buffering agent is greater than about 20 mEq.

205. (New) The composition of claim 192, wherein the total amount of the buffering agent present in the composition is about 16 mEq to about 150 mEq.

206. (New) The composition of claim 192, wherein the total amount of the buffering agent present in the composition is about 16 mEq to about 30 mEq.

207. (New) The composition of claim 192, wherein the total amount of the buffering agent present in the composition is about 15 mEq to about 55 mEq.

208. (New) The composition of claim 192, wherein at least one buffering agent is sodium bicarbonate.

209. (New) The composition of claim 208, wherein the amount of the sodium bicarbonate present in the composition is about 2 mEq to about 70 mEq.

210. (New) The composition of claim 208, wherein the amount of the sodium bicarbonate present in the composition is about 10 mEq to about 55 mEq.

211. (New) The composition of claim 208, wherein the amount of the sodium bicarbonate present in the composition is about 12.5 mEq to about 30 mEq.


212. (New) The composition of claim 208, wherein the amount of the sodium bicarbonate present in the composition is about 0.2 mEq, 1 mEq, 2 mEq, 3 mEq, 5 mEq, 10 mEq, 12.5 mEq, 15 mEq, 20 mEq, 25 mEq, 30 mEq, 50 mEq, 70 mEq, or 150 mEq.

213. (New) The composition of claim 192, wherein at least one buffering agent is calcium carbonate.

214. (New) The composition of claim 213, wherein the amount of the calcium carbonate present in the composition is about 2 mEq to about 70 mEq.

215. (New) The composition of claim 213, wherein the amount of the calcium carbonate present in the composition is about 10 mEq to about 55 mEq.

216. (New) The composition of claim 213, wherein the amount of the calcium carbonate present in the composition is about 12.5 mEq to about 30 mEq.

 217. (New) The composition of claim 213, wherein the amount of the calcium carbonate present in the composition is about 0.2 mEq, 1 mEq, 2 mEq, 3 mEq, 5 mEq, 10 mEq, 12.5 mEq, 15 mEq, 20 mEq, 25 mEq, 30 mEq, 50 mEq, 70 mEq, or 150 mEq.

218. (New) The composition of claim 192, wherein the buffering agent is a mixture of sodium bicarbonate and calcium carbonate.

219. (New) The composition of claim 218, wherein the amount of the sodium bicarbonate and calcium carbonate totals about 2 mEq to about 70 mEq.

220. (New) The composition of claim 218, wherein the amount of the sodium bicarbonate and calcium carbonate totals about 10 mEq to about 55 mEq.

221. (New) The composition of claim 218, wherein the amount of the sodium bicarbonate and calcium carbonate totals about 12.5 mEq to about 30 mEq.

222. (New) The composition of claim 218, wherein the amount of the sodium bicarbonate and calcium carbonate totals about 0.2 mEq, 1 mEq, 2 mEq, 3 mEq, 5 mEq, 10 mEq, 12.5 mEq, 15 mEq, 20 mEq, 25 mEq, 30 mEq, 50 mEq, 70 mEq, or 150 mEq.

*223* 223. (New) The composition of claim 192, wherein all or part of the proton pump inhibitor is micronized.

224. (New) The composition of claim 192, wherein all or part of the buffering agent is micronized.

*A24* 225. (New) The composition of claim 192, wherein the composition is administered in an amount to maintain a serum concentration of the proton pump inhibitor greater than about 0.15 µg/ml from about 15 minutes to about 1 hour after administration of the composition.

226. (New) The composition of claim 192, wherein the composition is administered in an amount to maintain a serum concentration of the proton pump inhibitor greater than about 0.15 µg/ml from about 15 minutes to about 1.5 hours after administration of the composition.

227. (New) The composition of claim 192, wherein the composition is administered in an amount to maintain a serum concentration of the proton pump inhibitor greater than about 0.1 µg/ml from about 15 minutes to about 1.5 hours after administration of the composition.

228. (New) The composition of claim 192, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15 µg/ml at any time within about 30 minutes after administration of the composition.

229. (New) The composition of claim 192, wherein the composition is administered in an amount to maintain a serum concentration of the proton pump inhibitor greater than about 0.15  $\mu\text{g/ml}$  from about 10 minutes to about 30 minutes after administration of the composition.

230. (New) The composition of claim 192, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15  $\mu\text{g/ml}$  at any time within about 20 minutes after administration of the composition.

A24 231. (New) The composition of claim 192, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1  $\mu\text{g/ml}$  at any time within about 15 minutes after administration of the composition.

232. (New) The composition of claim 192, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15  $\mu\text{g/ml}$  at any time within about 15 minutes after administration of the composition.

See CI

233. (New) A pharmaceutical composition in a form of a commercially stable powder for suspension useful in the treatment of acid-caused gastrointestinal disorders, comprising: a therapeutically effective amount of at least one acid labile, substituted benzimidazole  $H^+, K^+$ -ATPase proton pump inhibitor, at least one buffering agent in an amount of about 0.1 mEq to about 2.5 mEq per mg of the proton pump inhibitor, and at least one thickening agent to reduce settling of the proton pump inhibitor after constitution with an aqueous medium; provided that the amount of the buffering agent is sufficient to elevate pH of stomach secretions upon oral administration to a subject to prevent acid degradation of at least some of the proton pump inhibitor in the stomach secretions to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1  $\mu g/ml$  at any time within about 30 minutes after administration of the composition.

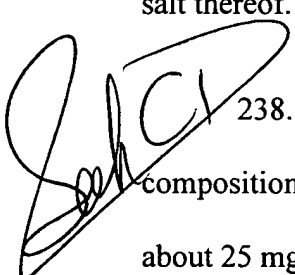
234. (New) The composition of claim 233, wherein the proton pump inhibitor is selected from the group consisting of omeprazole, lansoprazole, rabeprazole, esomeprazole, pantoprazole, pariprazole, and lentinoprazole, or an enantiomer, isomer, tautomer, ester, amide, derivative, prodrug, free base, or salt thereof.


235. (New) The composition of claim 234, wherein the proton pump inhibitor is omeprazole, or an enantiomer, isomer, tautomer, ester, amide, derivative, prodrug, free base, or salt thereof.

236. (New) The composition of claim 235, wherein the omeprazole is present in the composition in an amount of about 2 mg, about 5 mg, about 10 mg, about 15 mg, about 20 mg, about 25 mg, about 30 mg, about 35 mg, about 40 mg, about 45 mg, about 50 mg, about 55 mg,

about 60 mg, about 65 mg, about 70 mg, about 75 mg, about 80 mg, about 85 mg, about 90 mg, about 95 mg, about 100 mg, about 105 mg, about 110 mg, about 115 mg, or about 120 mg.

237. (New) The composition of claim 234, wherein the proton pump inhibitor is lansoprazole, or an enantiomer, isomer, tautomer, ester, amide, derivative, prodrug, free base, or salt thereof.

 238. (New) The composition of claim 237, wherein the lansoprazole is present in the composition in an amount of about 2 mg, about 5 mg, about 10 mg, about 15 mg, about 20 mg, about 25 mg, about 30 mg, about 35 mg, about 40 mg, about 45 mg, about 50 mg, about 55 mg, about 60 mg, about 65 mg, about 70 mg, about 75 mg, about 80 mg, about 85 mg, about 90 mg, about 95 mg, about 100 mg, about 105 mg, about 110 mg, about 115 mg, or about 120 mg.



239. (New) The composition of claim 233, further comprising at least one of an excipient, a pharmaceutically compatible carrier, a binder, a suspending agent, a flavoring agent, a sweetening agent, a disintegrant, a flow aid, a lubricant, an adjuvant, a colorant, a diluent, a moistening agent, a preservative, a parietal cell activator, an anti-foaming agent, an antioxidant, a chelating agent, an antifungal agent, an antibacterial agent, or an isotonic agent, and combinations of any of the foregoing.

240. (New) The composition of claim 233, wherein the buffering agent is selected from the group consisting of a bicarbonate salt of a Group IA metal, an alkali earth metal buffering agent, a calcium buffering agent, a magnesium buffering agent, an aluminum buffering agent, sodium bicarbonate, potassium bicarbonate, magnesium hydroxide, magnesium lactate, magnesium gluconate, magnesium oxide, magnesium aluminate, magnesium carbonate, magnesium silicate, magnesium citrate, aluminum hydroxide, aluminum phosphate, aluminum



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Adk

hydroxide/magnesium carbonate, potassium carbonate, potassium citrate, aluminum hydroxide/sodium bicarbonate coprecipitate, aluminum glycinate, aluminum magnesium hydroxide, sodium citrate, sodium tartrate, sodium acetate, sodium carbonate, sodium polyphosphate, sodium dihydrogen phosphate, potassium polyphosphate, sodium pyrophosphate, potassium pyrophosphate, disodium hydrogenphosphate, dipotassium hydrogenphosphate, trisodium phosphate, tripotassium phosphate, potassium metaphosphate, calcium acetate, calcium glycerophosphate, calcium chloride, calcium hydroxide, calcium lactate, calcium carbonate, calcium gluconate, calcium bicarbonate, calcium citrate, calcium phosphate magnesium phosphate, potassium phosphate, sodium phosphate, trihydroxymethylaminomethane, an amino acid, an acid salt of an amino acid, an alkali salt of an amino acid, and combinations of any of the foregoing.

241. (New) The composition of claim 233, wherein the amount of the buffering agent present in the composition is about 0.5 mEq to about 150 mEq.

242. (New) The composition of claim 233, wherein the amount of the buffering agent present in the composition is about 5 mEq to about 30 mEq.

243. (New) The composition of claim 233, wherein the amount of the buffering agent present in the composition is about 15 mEq to about 55 mEq.

244. (New) The composition of claim 233, wherein the buffering agent is sodium bicarbonate.

245. (New) The composition of claim 244, wherein the amount of the sodium bicarbonate present in the composition is about 2 mEq to about 70 mEq.

246. (New) The composition of claim 244, wherein the amount of the sodium bicarbonate present in the composition is about 10 mEq to about 55 mEq.

247. (New) The composition of claim 244, wherein the amount of the sodium bicarbonate present in the composition is about 12.5 mEq to about 30 mEq.

248. (New) The composition of claim 244, wherein the amount of the sodium bicarbonate present in the composition is about 0.2 mEq, 1 mEq, 2 mEq, 3 mEq, 5 mEq, 10 mEq, 12.5 mEq, 15 mEq, 20 mEq, 25 mEq, 30 mEq, 50 mEq, 70 mEq, or 150 mEq.

249. (New) The composition of claim 233, wherein the buffering agent is calcium carbonate.

250. (New) The composition of claim 249, wherein the amount of the calcium carbonate present in the composition is about 2 mEq to about 70 mEq.

251. (New) The composition of claim 249, wherein the amount of the calcium carbonate present in the composition is about 10 mEq to about 55 mEq.

252. (New) The composition of claim 249, wherein the amount of the calcium carbonate present in the composition is about 12.5 mEq to about 30 mEq.

253. (New) The composition of claim 249, wherein the amount of the calcium carbonate present in the composition is about 0.2 mEq, 1 mEq, 2 mEq, 3 mEq, 5 mEq, 10 mEq, 12.5 mEq, 15 mEq, 20 mEq, 25 mEq, 30 mEq, 50 mEq, 70 mEq, or 150 mEq.

254. (New) The composition of claim 233, wherein the buffering agent is a mixture of sodium bicarbonate and calcium carbonate.

255. (New) The composition of claim 254, wherein the amount of the sodium bicarbonate and calcium carbonate totals about 2 mEq to about 70 mEq.

256. (New) The composition of claim 254, wherein the amount of the sodium bicarbonate and calcium carbonate totals about 10 mEq to about 55 mEq.

257. (New) The composition of claim 254, wherein the amount of the sodium bicarbonate and calcium carbonate totals about 12.5 mEq to about 30 mEq.

258. (New) The composition of claim 254, wherein the amount of the sodium bicarbonate and calcium carbonate totals about 0.2 mEq, 1 mEq, 2 mEq, 3 mEq, 5 mEq, 10 mEq, 12.5 mEq, 15 mEq, 20 mEq, 25 mEq, 30 mEq, 50 mEq, 70 mEq, or 150 mEq.

259. (New) The composition of claim 233, wherein all or part of the proton pump inhibitor is micronized.

260. (New) The composition of claim 233, wherein all or part of the buffering agent is micronized.

261. (New) The composition of claim 233, wherein the composition is administered in an amount to maintain a serum concentration of the proton pump inhibitor greater than about 0.15 µg/ml from about 15 minutes to about 1 hour after administration of the composition.

262. (New) The composition of claim 233, wherein the composition is administered in an amount to maintain a serum concentration of the proton pump inhibitor greater than about 0.15 µg/ml from about 15 minutes to about 1.5 hours after administration of the composition.

263. (New) The composition of claim 233, wherein the composition is administered in an amount to maintain a serum concentration of the proton pump inhibitor greater than about 0.1  $\mu\text{g/ml}$  from about 15 minutes to about 1.5 hours after administration of the composition.

264. (New) The composition of claim 233, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15  $\mu\text{g/ml}$  at any time within about 30 minutes after administration of the composition.

265. (New) The composition of claim 233, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15  $\mu\text{g/ml}$  at any time within about 30 minutes after administration of the composition.

266. (New) The composition of claim 233, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15  $\mu\text{g/ml}$  at any time within about 20 minutes after administration of the composition.

267. (New) The composition of claim 233, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1  $\mu\text{g/ml}$  at any time within about 15 minutes after administration of the composition.

268. (New) The composition of claim 233, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15  $\mu\text{g/ml}$  at any time within about 15 minutes after administration of the composition.

269. (New) A method of treating a gastric acid related disorder in a subject in need thereof, comprising:

*Subject*  
providing a solid <sup>(coated or not?)</sup> pharmaceutical composition for oral administration to the subject, the composition comprising a therapeutically effective amount of at least one acid labile, substituted benzimidazole  $H^+, K^+$ -ATPase proton pump inhibitor and an amount of at least one buffering agent sufficient to increase gastric fluid pH to a pH that prevents acid degradation of at least some of the proton pump inhibitor in the gastric fluid; and

orally administering the pharmaceutical composition to the subject;

*Adm*  
wherein upon oral administration to the subject, the composition provides a pharmacokinetic profile such that at least about 50% of total area under serum concentration time curve (AUC) for the proton pump inhibitor occurs within about 2 hours after administration of a single dose of the composition to the subject.

270. (New) The method of claim 269, wherein the area under the serum concentration time curve (AUC) for the proton pump inhibitor is at least about 60% of the total area.

271. (New) The method of claim 269, wherein the area under the serum concentration time curve (AUC) for the proton pump inhibitor is at least about 70% of the total area.

272. (New) The method of claim 269, wherein the at least about 50% of total area under the serum concentration time curve (AUC) for the proton pump inhibitor occurs within about 1.75 hours after administration of a single dose of the composition to the subject.

273. (New) The method of claim 269, wherein the at least about 50% of total area under the serum concentration time curve (AUC) for the proton pump inhibitor occurs within about 1.5 hours after administration of a single dose of the composition to the subject.

274. (New) The method of claim 269, wherein the at least about 50% of total area under the serum concentration time curve (AUC) for the proton pump inhibitor occurs within about 1 hour after administration of a single dose of the composition to the subject.

275. (New) The method of claim 269, wherein within about 15 minutes after administration of a single dose of the composition to the subject, a serum concentration of at least about 0.15  $\mu\text{g}$  proton pump inhibitor/ml is obtained.

Q24  
Jeh CI

*coated or not?*

276. (New) A solid pharmaceutical composition suitable for oral administration to a subject, comprising: at least one acid labile, substituted benzimidazole  $H^+, K^+$ -ATPase proton pump inhibitor and an amount of at least one buffering agent sufficient to increase gastric fluid pH to a pH that prevents acid degradation of at least some of the proton pump inhibitor in the gastric fluid;

*Sub C1*  
*A24* wherein the composition upon oral administration to the subject provides a pharmacokinetic profile such that at least about 50% of total area under serum concentration time curve (AUC) for the proton pump inhibitor occurs within about 2 hours after administration of a single dose of the composition.

277. (New) The composition of claim 276, wherein the area under the serum concentration time curve (AUC) for the proton pump inhibitor is at least about 60% of the total area.

278. (New) The composition of claim 276, wherein the area under the serum concentration time curve (AUC) for the proton pump inhibitor is at least about 70% of the total area.

279. (New) The composition of claim 276, wherein the at least about 50% of total area under the serum concentration time curve (AUC) for the proton pump inhibitor occurs within about 1.75 hours after administration of a single dose of the composition to the subject.

280. (New) The composition of claim 276, wherein the at least about 50% of total area under the serum concentration time curve (AUC) for the proton pump inhibitor occurs within about 1.5 hours after administration of a single dose of the composition to the subject.

281. (New) The composition of claim 276, wherein the at least about 50% of total area under the serum concentration time curve (AUC) for the proton pump inhibitor occurs within about 1 hour after administration of a single dose of the composition to the subject.

282. (New) The composition of claim 276 wherein within about 15 minutes after administration of a single dose of the composition to the subject, a serum concentration of at least about 0.15  $\mu\text{g}$  proton pump inhibitor/ml is obtained.

A24  
Seah C



283. (New) A method of treating a gastric acid related disorder in a subject in need thereof, comprising:

*Sal CI*  
providing a solid pharmaceutical composition for oral administration to the subject, the composition comprising a therapeutically effective amount of at least one acid labile, substituted benzimidazole  $H^+, K^+$ -ATPase proton pump inhibitor and an amount of at least one buffering agent sufficient to increase gastric fluid pH to a pH that prevents acid degradation of at least some of the proton pump inhibitor in the gastric fluid; and

*Q24*  
orally administering the pharmaceutical composition to the subject;

wherein upon oral administration to the subject, the composition provides a pharmacokinetic profile such that the proton pump inhibitor reaches a maximum serum concentration within about 1 hour after administration of a single dose of the composition.

284. (New) The method of claim 283, wherein the maximum serum concentration of the proton pump inhibitor is reached within about 0.75 hours.

285. (New) The method of claim 283, wherein the maximum serum concentration of the proton pump inhibitor is reached within about 0.5 hours.

286. (New) The method of claim 283, wherein the maximum serum concentration is at least about 0.25  $\mu g$  proton pump inhibitor/ml.

287. (New) The method of claim 283, wherein the maximum serum concentration is at least about 0.5  $\mu g$  proton pump inhibitor/ml.

288. (New) The method of claim 283, wherein within about 15 minutes after administration of a single dose of the composition to the subject, a serum concentration of at least about 0.15  $\mu\text{g}$  proton pump inhibitor/ml is obtained.

*John C. 1*  
*A 24*

289. (New) A solid pharmaceutical composition suitable for oral administration to a subject, comprising: at least one acid labile, substituted benzimidazole  $H^+, K^+$ -ATPase proton pump inhibitor and an amount of at least one buffering agent sufficient to increase gastric fluid pH to a pH that prevents acid degradation of at least some of the proton pump inhibitor in the gastric fluid;

wherein the composition upon oral administration to the subject provides a pharmacokinetic profile such that the proton pump inhibitor reaches a maximum serum concentration within about 1 hour after administration of a single dose of the composition.

290. (New) The composition of claim 289, wherein the maximum serum concentration of the proton pump inhibitor is reached within about 0.75 hours.

291. (New) The composition of claim 289, wherein the maximum serum concentration of the proton pump inhibitor is reached within about 0.5 hours.

292. (New) The composition of claim 289, wherein the maximum serum concentration is at least about 0.25  $\mu g$  proton pump inhibitor/ml.

293. (New) The composition of claim 289, wherein the maximum serum concentration is at least about 0.5  $\mu g$  proton pump inhibitor/ml.

294. (New) The composition of claim 289, wherein within about 15 minutes after administration of a single dose of the composition to the subject, a serum concentration of at least about 0.15  $\mu g$  proton pump inhibitor/ml is obtained.

295. (New) A method of treating a gastric acid related disorder in a subject in need thereof, comprising:

*See C1*  
providing a solid pharmaceutical composition for oral administration to the subject, the composition comprising a therapeutically effective amount of at least one acid labile, substituted benzimidazole  $H^+, K^+$ -ATPase proton pump inhibitor and an amount of at least one buffering agent sufficient to increase gastric fluid pH to a pH that prevents acid degradation of at least some of the proton pump inhibitor in the gastric fluid; and

*A24*  
orally administering the pharmaceutical composition to the subject;

wherein upon oral administration to the subject, the composition provides a serum concentration of the proton pump inhibitor of at least about 50% of maximum serum concentration within about 45 minutes after administration of a single dose of the composition.

296. (New) The method of claim 295, wherein the 50% of the maximum serum concentration of the proton pump inhibitor is reached within about 30 minutes.

297. (New) The method of claim 295, wherein the 50% of the maximum serum concentration of the proton pump inhibitor is reached within about 15 minutes.

298. (New) The method of claim 295, wherein within about 15 minutes after administration of a single dose of the composition to the subject, a serum concentration of at least about 0.15  $\mu g$  proton pump inhibitor/ml is obtained.

299. (New) A solid pharmaceutical composition suitable for oral administration to a subject, comprising: at least one acid labile, substituted benzimidazole  $H^+, K^+$ -ATPase proton pump inhibitor and an amount of at least one buffering agent sufficient to increase gastric fluid pH to a pH that prevents acid degradation of at least some of the proton pump inhibitor in the gastric fluid;

wherein the composition upon oral administration to the subject provides a serum concentration of the proton pump inhibitor of at least about 50% of maximum serum concentration within about 45 minutes after administration of a single dose of the composition.

300. (New) The composition of claim 299, wherein the 50% of the maximum serum concentration of the proton pump inhibitor is reached within about 30 minutes.

301. (New) The composition of claim 299, wherein the 50% of the maximum serum concentration of the proton pump inhibitor is reached within about 15 minutes.

302. (New) The composition of claim 299, wherein the 50% of the maximum serum concentration is at least about 0.25  $\mu g$  proton pump inhibitor/ml.

303. (New) The composition of claim 299, wherein the 50% of the maximum serum concentration is at least about 0.5  $\mu g$  proton pump inhibitor/ml.

304. (New) The composition of claim 299, wherein within about 15 minutes after administration of a single dose of the composition to the subject, a serum concentration of at least about 0.15  $\mu g$  proton pump inhibitor/ml is obtained.

305. (New) A method of treating a gastric acid related disorder in a subject in need thereof, comprising:

*Sub C1*  
providing a solid pharmaceutical composition for oral administration to the subject, the composition comprising a therapeutically effective amount of at least one acid labile, substituted benzimidazole  $H^+, K^+$ -ATPase proton pump inhibitor and an amount of at least one buffering agent sufficient to increase gastric fluid pH to a pH that prevents acid degradation of at least some of the proton pump inhibitor in the gastric fluid; and

orally administering the pharmaceutical composition to the subject;

*A24*  
wherein upon oral administration of a single dose of the composition to the subject, the composition provides a maximum serum concentration of the proton pump inhibitor of at least about 0.25  $\mu g/ml$ , and within about 15 minutes after administration of the single dose, a serum concentration of at least about 0.15  $\mu g$  proton pump inhibitor/ml is obtained.

306. (New) The method of claim 305, wherein the maximum serum concentration is at least about 0.5  $\mu g/ml$ .

307. (New) The method of claim 305, wherein the maximum serum concentration is at least about 0.75  $\mu g/ml$ .

308. (New) The method of claim 305, wherein the maximum serum concentration of the proton pump inhibitor is reached within about 0.5 hours.

309. (New) The method of claim 305, wherein the maximum serum concentration of the proton pump inhibitor is reached within about 1 hour.

310. (New) A solid pharmaceutical composition suitable for oral administration to a subject, comprising: at least one acid labile, substituted benzimidazole  $H^+, K^+$ -ATPase proton pump inhibitor and an amount of at least one buffering agent sufficient to increase gastric fluid pH to a pH that prevents acid degradation of at least some of the proton pump inhibitor in the gastric fluid;

Sub C1 wherein the composition upon oral administration of a single dose to the subject, provides a maximum serum concentration of the proton pump inhibitor of at least about 0.25  $\mu g/ml$ , and within about 15 minutes after administration of the single dose, a serum concentration of at least about 0.15  $\mu g$  proton pump inhibitor/ml is obtained.

A24 311. (New) The composition of claim 310, wherein the maximum serum concentration is at least about 0.5  $\mu g/ml$ .

312. (New) The composition of claim 310, wherein the maximum serum concentration is at least about 0.75  $\mu g/ml$ .

313. (New) The composition of claim 310, wherein the maximum serum concentration of the proton pump inhibitor is reached within about 0.5 hours.

314. (New) The composition of claim 310, wherein the maximum serum concentration of the proton pump inhibitor is reached within about 1 hour.

315. (New) A solid pharmaceutical composition suitable for oral administration to a subject, comprising: (a) at least one acid labile, substituted benzimidazole  $H^+,K^+$ -ATPase proton pump inhibitor in an amount of about 2 mg to about 300 mg; and (b) at least two buffering agents in a total amount sufficient to elevate pH of stomach secretions upon oral administration to the subject to prevent acid degradation of at least some of the proton pump inhibitor in the stomach secretions to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1  $\mu\text{g/ml}$  at any time within about 30 minutes after ingestion of the composition; and

*See 315*  
*A24* wherein if the composition is other than a dosage form selected from the group consisting of suspension tablet, chewable tablet, effervescent powder, effervescent tablet, and troche, then the buffering agent is in an amount that is more than about 40 times the amount of proton pump inhibitor on a weight to weight basis in the composition.

316. (New) The composition of claim 315, wherein the composition is a dosage form selected from the group consisting of tablet, capsule, powder, pellets, and granules.

317. (New) The composition of claim 315, wherein the composition is a dosage form selected from the group consisting of suspension tablet, chewable tablet, effervescent powder, effervescent tablet, and troche.

318. (New) The composition of claim 315, wherein the proton pump inhibitor is enteric coated prior to administration.

319. (New) The composition of claim 315, wherein the proton pump inhibitor is selected from the group consisting of omeprazole, lansoprazole, rabeprazole, esomeprazole,



pantoprazole, pariprazole, and leminoprazole, or an enantiomer, isomer, tautomer, ester, amide, derivative, prodrug, free base, or salt thereof.

320. (New) The composition of claim 319, wherein the proton pump inhibitor is omeprazole, or an enantiomer, isomer, tautomer, ester, amide, derivative, prodrug, free base, or salt thereof.

321. (New) The composition of claim 319, wherein the omeprazole is present in the composition in an amount of about 2 mg, about 5 mg, about 10 mg, about 15 mg, about 20 mg, about 25 mg, about 30 mg, about 35 mg, about 40 mg, about 45 mg, about 50 mg, about 55 mg, about 60 mg, about 65 mg, about 70 mg, about 75 mg, about 80 mg, about 85 mg, about 90 mg, about 95 mg, about 100 mg, about 105 mg, about 110 mg, about 115 mg, or about 120 mg.

322. (New) The composition of claim 319, wherein the proton pump inhibitor is lansoprazole, or an enantiomer, isomer, tautomer, ester, amide, derivative, prodrug, free base, or salt thereof.

323. (New) The composition of claim 322, the lansoprazole is present in the composition in an amount of about 2 mg, about 5 mg, about 10 mg, about 15 mg, about 20 mg, about 25 mg, about 30 mg, about 35 mg, about 40 mg, about 45 mg, about 50 mg, about 55 mg, about 60 mg, about 65 mg, about 70 mg, about 75 mg, about 80 mg, about 85 mg, about 90 mg, about 95 mg, about 100 mg, about 105 mg, about 110 mg, about 115 mg, or about 120 mg.

324. (New) The composition of claim 315, further comprising at least one of an excipient, a pharmaceutically compatible carrier, a binder, a suspending agent, a flavoring agent, a sweetening agent, a disintegrant, a flow aid, a lubricant, an adjuvant, a colorant, a diluent, a

moistening agent, a preservative, a parietal cell activator, an anti-foaming agent, an antioxidant, a chelating agent, an antifungal agent, an antibacterial agent, or an isotonic agent, and combinations of any of the foregoing.

325. (New) The composition of claim 315, wherein the buffering agent is selected from the group consisting of a bicarbonate salt of a Group IA metal, an alkali earth metal buffering agent, a calcium buffering agent, a magnesium buffering agent, an aluminum buffering agent, sodium bicarbonate, potassium bicarbonate, magnesium hydroxide, magnesium lactate, magnesium gluconate, magnesium oxide, magnesium aluminate, magnesium carbonate, magnesium silicate, magnesium citrate, aluminum hydroxide, aluminum phosphate, aluminum hydroxide/magnesium carbonate, potassium carbonate, potassium citrate, aluminum hydroxide/sodium bicarbonate coprecipitate, aluminum glycinate, aluminum magnesium hydroxide, sodium citrate, sodium tartrate, sodium acetate, sodium carbonate, sodium polyphosphate, sodium dihydrogen phosphate, potassium polyphosphate, sodium pyrophosphate, potassium pyrophosphate, disodium hydrogenphosphate, dipotassium hydrogenphosphate, trisodium phosphate, tripotassium phosphate, potassium metaphosphate, calcium acetate, calcium glycerophosphate, calcium chloride, calcium hydroxide, calcium lactate, calcium carbonate, calcium gluconate, calcium bicarbonate, calcium citrate, calcium phosphate magnesium phosphate, potassium phosphate, sodium phosphate, trihydroxymethylaminomethane, an amino acid, an acid salt of an amino acid, an alkali salt of an amino acid, and combinations of any of the foregoing.

326. (New) The composition of claim 315, wherein the total amount of the buffering agent is greater than about 10 mEq.

327. (New) The composition of claim 315, wherein the total amount of the buffering agent is greater than about 20 mEq.

328. (New) The composition of claim 315, wherein the total amount of the buffering agent present in the composition is about 16 mEq to about 150 mEq.

*329* 329. (New) The composition of claim 315, wherein the total amount of the buffering agent present in the composition is about 16 mEq to about 70 mEq.

330. (New) The composition of claim 315, wherein the total amount of the buffering agent present in the composition is about 16 mEq to about 55 mEq.

*331* 331. (New) The composition of claim 315, wherein at least one of the buffering agents is sodium bicarbonate.

332. (New) The composition of claim 331, wherein the amount of the sodium bicarbonate present in the composition is about 2 mEq to about 70 mEq.

333. (New) The composition of claim 331, wherein the amount of the sodium bicarbonate present in the composition is about 10 mEq to about 55 mEq.

334. (New) The composition of claim 331, wherein the amount of the sodium bicarbonate present in the composition is about 12.5 mEq to about 30 mEq.

335. (New) The composition of claim 331, wherein the amount of the sodium bicarbonate present in the composition is about 0.2 mEq, 1 mEq, 2 mEq, 3 mEq, 5 mEq, 10 mEq, 12.5 mEq, 15 mEq, 20 mEq, 25 mEq, 30 mEq, 50 mEq, 70 mEq, or 150 mEq.

336. (New) The composition of claim 315, wherein at least one of the buffering agents is calcium carbonate.

337. (New) The composition of claim 336, wherein the amount of the calcium carbonate present in the composition is about 2 mEq to about 70 mEq.

338. (New) The composition of claim 336, wherein the amount of the calcium carbonate present in the composition is about 10 mEq to about 55 mEq.

339. (New) The composition of claim 336, wherein the amount of the calcium carbonate present in the composition is about 12.5 mEq to about 30 mEq.

340. (New) The composition of claim 336, wherein the amount of the calcium carbonate present in the composition is about 0.2 mEq, 1 mEq, 2 mEq, 3 mEq, 5 mEq, 10 mEq, 12.5 mEq, 15 mEq, 20 mEq, 25 mEq, 30 mEq, 50 mEq, 70 mEq, or 150 mEq.

341. (New) The composition of claim 315, wherein the buffering agent is a mixture of sodium bicarbonate and calcium carbonate.

342. (New) The composition of claim 341, wherein the amount of the sodium bicarbonate and calcium carbonate totals about 16 mEq to about 70 mEq.

343. (New) The composition of claim 341, wherein the amount of the sodium bicarbonate and calcium carbonate totals about 16 mEq to about 50 mEq.

344. (New) The composition of claim 341, wherein the amount of the sodium bicarbonate and calcium carbonate totals about 16 mEq to about 30 mEq.

345. (New) The composition of claim 341, wherein the amount of the sodium bicarbonate and calcium carbonate totals about 0.2 mEq, 1 mEq, 2 mEq, 3 mEq, 5 mEq, 10 mEq, 12.5 mEq, 15 mEq, 20 mEq, 25 mEq, 30 mEq, 50 mEq, 70 mEq, or 150 mEq.

346. (New) The composition of claim 315, wherein all or part of the proton pump inhibitor is micronized.

*See C1*  
347. (New) The composition of claim 315, wherein all or part of the buffering agent is micronized.

*A24*  
348. (New) The composition of claim 315, wherein the composition is administered in an amount to maintain a serum concentration of the proton pump inhibitor greater than about 0.15 µg/ml from about 15 minutes to about 1 hour after administration of the composition.

349. (New) The composition of claim 315, wherein the composition is administered in an amount to maintain a serum concentration of the proton pump inhibitor greater than about 0.15 µg/ml from about 15 minutes to about 1.5 hours after administration of the composition.

350. (New) The composition of claim 315, wherein the composition is administered in an amount to maintain a serum concentration of the proton pump inhibitor greater than about 0.1 µg/ml from about 15 minutes to about 1.5 hours after administration of the composition.

351. (New) The composition of claim 315, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15 µg/ml at any time within about 30 minutes after administration of the composition.

352. (New) The composition of claim 315, wherein the composition is administered in an amount to maintain a serum concentration of the proton pump inhibitor greater than about 0.15  $\mu\text{g/ml}$  from about 10 minutes to about 30 minutes after administration of the composition.

353. (New) The composition of claim 315, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15  $\mu\text{g/ml}$  at any time within about 20 minutes after administration of the composition.

354. (New) The composition of claim 315, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1  $\mu\text{g/ml}$  at any time within about 15 minutes after administration of the composition.

355. (New) The composition of claim 315, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.15  $\mu\text{g/ml}$  at any time within about 15 minutes after administration of the composition.

356. (New) The composition of claim 315, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.10  $\mu\text{g/ml}$  at any time within about 20 minutes after administration of the composition.

357. (New) The method of claim 1, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1  $\mu\text{g/ml}$  at any time within about 20 minutes after administration of the composition.

358. (New) The method of claim 75, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1 µg/ml at any time within about 20 minutes after administration of the composition.

359. (New) The method of claim 113, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1 µg/ml at any time within about 20 minutes after administration of the composition.

Q24 360. (New) The composition of claim 154, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1 µg/ml at any time within about 20 minutes after administration of the composition.

361. (New) The composition of claim 192, wherein the composition is administered in an amount to achieve an initial serum concentration of the proton pump inhibitor greater than about 0.1 µg/ml at any time within about 20 minutes after administration of the composition.

Sub C1